

## **Bi-weekly Wetland and Stream Corridor Restoration Update**

### **Issue 42**

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Welcome to the Bi-weekly Wetland and Stream Corridor Restoration Update. This Web site

- Provides current information on wetland and river corridor restoration projects
- Recognizes outstanding restoration projects
- Offers a forum for information sharing

We welcome the submission of articles and announcements related to your restoration project. Just send your write-up to EPA's contractor at [restorationupdate@tetratech-ffx.com](mailto:restorationupdate@tetratech-ffx.com) or mail it to Rebecca Schmidt, Bi-weekly Restoration Update Coordinator, Tetra Tech, Inc., 10306 Eaton Place, Suite 340, Fairfax, VA 22030. We will carefully consider your submission for inclusion in a future update. If your submission is selected, please note that it might be edited for length or style before being posted. Because this Web site is meant to be a public forum on restoration information, we cannot post any information that is copyrighted or information that advocates or lobbies for any political, business, or commercial purposes or has the appearance of doing so.

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## **Feature Article**

### **Restoring Habitat and Fish Passage in Wisconsin**

Smallmouth bass, other warm water fish species, and Wisconsin anglers will benefit from three collaborative state, federal, and local projects unfolding this fall along rivers in Wisconsin's Rock, Sauk, and Ozaukee Counties. The projects include removing two old dams and restoring stream channels. Project staff expect the combination of dam removal and stream restoration to improve fish migration, diversity, and habitat, as well as enhance water quality and navigation.

The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) is providing a large portion of funding for the projects—almost \$80,000—through its Wildlife Habitat Incentives Program (WHIP). The Wisconsin Department of Natural Resources (DNR) will carry out the projects in Rock and Ozaukee Counties and will work with the Sauk County Land Conservation Department on the project in that county. “These projects have two things in common: they'll bring permanent improvements to the health and sport fisheries of three important warm water streams in Wisconsin, and they represent governments working together to get important projects done,” said DNR Secretary Darrell Bazzell.

Don Baloun, acting State Conservationist for NRCS in Wisconsin, said the three projects represent a good use of the WHIP program, which focuses on reestablishing habitats for wildlife species that are declining. The program provides cost-sharing to landowners and has helped Wisconsin landowners restore more than 5,000 acres of oak savanna and native grasslands, 40 miles of trout stream habitat, and a hundred acres of wild rice beds. “We are pleased to be a partner with the Wisconsin DNR in this effort,” said Baloun. “NRCS supports these projects to help the river ecology and the community. We see this as a good use of the program with long-lasting benefits.”

### **Afton Dam Removal (Rock County, WI)**

The first project, completed in mid-September 2002, removed a dilapidated 90-year-old dam on Bass Creek about three-quarters of a mile upstream from the confluence with the Rock River in Rock County. Once the dam was removed, DNR restored the streambanks at the dam site. Additional stabilization work upstream of the site might be performed at a later date, noted Paul Cunningham, a DNR systems ecologist. The removal of the dam is expected to change a 16-mile segment of Bass Creek from a fishery dominated by carp, suckers, and other rough fish to one dominated by bass and other more desirable

game fish, according to Don Bush, DNR fisheries supervisor. "We've found 24 species of fish in Afton Creek, and with the removal of the dam, virtually all of the 39 fish species found in the Rock River will be able to access the additional mileage the dam removal will add."

The dam structure was in very poor condition and unsafe; the owner applied to DNR to remove it because the estimated \$200,000 repairs were too expensive. The removal cost \$30,000, with three-quarters funded by NRCS and the remaining funds from federal Sport Fish Restoration dollars DNR receives, according to Sue Josheff, the DNR water regulation and zoning engineer on the project.

#### Narrows Creek Improvement Project (Sauk County, WI)

In October 2002, DNR fisheries crews and Sauk County Land Conservation Department agents finished a second project that improved streambanks along Narrows Creek, a tributary of the Baraboo River with great smallmouth bass potential. Project work included tapering 3,000 feet of creek banks, placing rock along the banks to protect against erosion, installing various fish habitat structures, and planting of grass on exposed soil. Funding for the project included Sauk County staff time, as well as \$18,000 from the NRCS and \$58,000 from DNR.

The Sauk County Land Conservation Department and a number of private landowners partnered to complete a portion of the project—they restored 1,800 feet of the 3,000 feet total. Each landowner paid 10 to 20 percent of the restoration cost, with the remainder being paid for by the Sauk County Land Conservation Department, through the State Stewardship funds. Smallmouth bass populations on other stream segments, similarly rehabilitated, have increased 9-fold over time. Since all the dams have recently been removed from the Baraboo River, staff expects to soon see walleye, smallmouth bass, and catfish, migrating during the summertime into Narrows Creek from the Baraboo and Wisconsin Rivers.

The project capitalized on the ongoing efforts to improve water quality through the Narrows Creek Priority Watershed Project, administered by the Sauk County Land Conservation Department. The 7-year old watershed project expires in 2004. Forty-five percent of the eligible landowners have signed up for improvement practices such as new barnyards, streambank stabilization, and installation of grassed waterways. To date the project has achieved more than 65 percent of the phosphorus removal goal and more than 60 percent of the sediment removal goal.

#### Waubeka Dam Removal (Ozaukee County, WI)

The third project, still under way, includes removal of the Waubeka Dam on the Milwaukee River and streambank restoration. Once the dam is removed, DNR contractors will restore the streambanks and stabilize them with native wetland and prairie plants. Large boulders and woody debris will be placed along the riverbanks to improve habitat. DNR expects the project to help increase the diversity and number of fish species to levels similar to those found in the river's free-flowing stretches upstream and downstream of the impoundment. The project is also expected to greatly improve the river's water quality by increasing its dissolved oxygen levels and lowering the water's temperature, according to Cunningham. WHIP, the U.S. Environmental Protection Agency's Great Lakes Protection Fund, and NRCS are providing the funding for the \$52,000 Waubeka Dam removal.

Portions of this article were excerpted from the weekly publication DNR News, found at [www.dnr.state.wi.us/org/caer/ce/news/on/2002/ON020917.htm](http://www.dnr.state.wi.us/org/caer/ce/news/on/2002/ON020917.htm), as well as from the Narrows Creek and Baraboo River Watershed fact sheet, found at [www.dnr.state.wi.us/org/gmu/lowerwis/surfacewaterfiles/watersheds/lw22.pdf](http://www.dnr.state.wi.us/org/gmu/lowerwis/surfacewaterfiles/watersheds/lw22.pdf). For more information contact Will Wawrzyn (Waubeka project) at 414-263-8699, Don Bush (Afton project) at 608-743-4823, or Tim Larson (Narrows Creek project) at 608-635-8122.

*If you'd like your project to appear as our next featured article, e-mail a short description to [restorationupdate@tetrattech-ffx.com](mailto:restorationupdate@tetrattech-ffx.com).*

## **Five-Star Restoration Projects Update**

The goal of EPA's Five-Star Restoration Program is to bring together citizen groups, corporations, youth conservation corps, students, landowners, and government agencies to undertake projects that restore streambanks and wetlands. The program provides challenge grants, technical support, and peer information exchange to enable community-based restoration projects. A few Five-Star Restoration projects are being revisited to see if the modest amount of funding (between \$5,000 and \$20,000) has helped the local restoration partners achieve their goals.

**Project Name:** Involving Youth in Salmon Habitat Restoration  
**Five-Star Grant:** \$10,000  
**Grant to:** King County Park System  
**Project Location:** King County, Washington

### **Original Project Description:**

The King County Park System will work with at-risk youth to restore critical salmon habitat along the Sammamish River in northeastern King County. Through this hands-on, interactive work experience, the youth will help complete part of a larger watershed restoration effort intended to help long-range salmon recovery. The project will be implemented in partnership with the King County Department of Youth Services, King County Work Training Program, King County World Conservation Corps, Washington Department of Natural Resources, and U.S. Army Corps of Engineers. Partial funding for this grant is being provided by the National Marine Fisheries Service's Community-based Restoration Program.

### **Project Update:**

Salmon Habitat Restoration project partners restored a 1.6-acre waterfront along the Sammamish River where salmon poaching, dumping, and other human activities had degraded river habitat. Youth from the King County World Conservation Corps, Boy Scout troop 572, and youth offenders under the King County Juvenile Courts Alternatives to Detention Program worked together, using their individual skills to complete the project. Youth from the Conservation Corps, an organization that enlists young adults from King County and around the world to work in environmental resource management, worked with site maintenance planning and pond restoration. The Boy Scouts learned teamwork as they removed nonnative species and installed paths around the site. At-risk youth learned about basic plant

identification and planting techniques, and all the participants learned to work together despite their different backgrounds. Cumulatively, the youth volunteers put in more than 600 hours of labor.

Completion of the project has limited human access to the Sammamish River at the restoration site. The limited access will prevent further degradation of the site by human activities and protect the quality of river habitat necessary for survival of the endangered Chinook salmon. To further ensure the quality of the river habitat, community volunteers will monitor the site for 3 years and complete necessary follow-up work as part of the Five-Star project. The project site is also part of a larger “re-leaf” watershed restoration effort designed to educate community volunteers about the importance of watershed restoration and provide the community with restoration opportunities. **[Updated September 2001.]**

**Project Name:** Jefferson Parish Marsh Restoration  
**Five-Star Grant:** \$10,000  
**Grant to:** Jefferson Parish Environmental and Development Control  
**Project Location:** New Orleans, Louisiana  
**Grant Year:** 2000

**Original Project Description:**

Jefferson Parish Environmental and Development Control will work with the Louisiana Army National Guard, the Texaco Corporation, and others to restore coastal wetlands in Jefferson Parish. The project partners will use 200 tons of recycled Christmas trees to construct wave breaks along eroding shorelines and to fill abandoned, dead-end canals in the Barataria Basin, the fastest eroding area of Louisiana's coast. In 10 years, the program has diverted more than 500,000 Christmas trees from local landfills and used them to restore hundreds of acres of valuable wetlands, while saving valuable landfill space and increasing public awareness of the importance of wetland conservation. Funding for this grant is being provided by the Gulf of Mexico Program, which is a partnership underwritten by EPA and the National Marine Fisheries Service's Community-based Restoration Program.

**Project Update:**

Since 1991 the Jefferson Parish Christmas Tree Marsh Restoration Project has diverted more than 500,000 trees from the landfill to be used to combat coastal erosion. The discarded Christmas trees are used to protect and rebuild coastal wetlands in two ways. First, the trees are used to build shoreline fences, which protect the fragile shoreline from erosion caused by wave action. The tree fences also trap sediments behind them, gradually rebuilding wetlands in the areas between trees and shore. Second, any remaining trees are airlifted into dead-end, abandoned oil and gas canals that have been plugged with a tree fence. Using Christmas trees has proven very effective because the trees are lightweight and form a floating organic lattice that encourages sediment deposition and serves as a substrate for native vegetation. The open-water canals are being returned to vegetated wetlands, restoring the area's natural hydrology. The project has also saved valuable landfill space.

The project is truly a community effort, with support coming from all segments of society, including volunteer labor, corporate donations, and federal and state agency support. In 1997 the Governor of Louisiana recognized the program for “showing the real spirit of volunteerism and community leadership in our continuing efforts to help save Louisianan wetlands.”

The significance of the project is not only its physical benefit to the coastal marshes of Jefferson Parish but also its heightening of the public's awareness of wetland issues. The project has received an enormous amount of media coverage, making it an outstanding public awareness/educational tool.

This project has received several local and national awards in recognition of its achievements and has been the subject of articles in many publications. **[Updated March 2002.]**

*For more information on EPA's Five-Star grant program, visit [www.epa.gov/owow/wetlands/restore/5star](http://www.epa.gov/owow/wetlands/restore/5star).*

## **Community-Based Restoration Partnerships**

### **Joining Forces to Restore San Luis Valley Wetlands**

The Colorado Partners for Fish and Wildlife Program has worked since 1989 to restore and protect wetland, upland, and riparian habitat throughout Colorado's San Luis Valley. The Program, initiated by the Colorado Division of Wildlife, benefits from the cooperation of diverse partners such as the Colorado Wetlands Initiative, Great Outdoors Colorado, Ducks Unlimited, The Nature Conservancy, the Natural Resources Conservation Service, local Soil and Water Conservation Districts, the U.S. Fish and Wildlife Service, and nearly 700 landowners.

The San Luis Valley in south-central Colorado is a critical area for wetland restoration and protection of migratory water birds. The valley is in an ancient lake bed approximately 100 miles long and 50 miles wide. Numerous large wetland complexes occur throughout the valley, supporting large concentrations of resident and migratory water birds. The Rio Grande River flows through the valley, and many small streams from surrounding mountains feed an immense aquifer. Agriculture, greasewood flats (*Sarcobates* species), wetlands, and riparian communities dominate the landscape. The Alamosa/Monte Vista National Wildlife Refuge complex is a key wetland component in the valley. The Nature Conservancy, Colorado Division of Wildlife, and Ducks Unlimited also have large wetland protection efforts ongoing in the valley, and the Partners program supports those efforts.

The Program's San Luis Valley restoration efforts were first designed to help alleviate avian cholera problems at the Monte Vista National Wildlife Refuge. By creating waterfowl wintering sites away from the refuge, the refuge was able to manage for reduced waterfowl concentrations and significantly reduce cholera mortalities. Since then, wetland restoration for nesting and migrating water birds has been the primary focus, and more than 10,000 wetland acres have been restored. An additional 8,000 acres of upland habitat have been managed through cooperative agreements with landowners.

### **Threats and Conservation Strategies**

The growing demand for water, the development of open space, and the adverse effects of agricultural land use are the primary threats to fish and wildlife resources in the San Luis Valley. The Program, in conjunction with its partners (Colorado Division of Wildlife, Ducks Unlimited, The Nature Conservancy,

and private landowners), has embarked on an ambitious conservation effort in the San Luis Valley. Fee title purchase, easements, and restoration of public and private lands are the principal strategies. The Program provides the component of habitat restoration on private lands. Program projects have primarily incorporated restoration techniques such as contour terraces with water control, fencing, grazing management, and revegetation of native plant communities. Restoration costs have averaged about \$50 to \$200 per acre for wet meadows.

#### **Future Needs**

The Program and its partners expect restoration of additional shallow-water wetlands for nesting and foraging throughout the San Luis Valley to remain a major focus. Riparian restoration projects need to increase in number and magnitude. Potential future needs are estimated at a minimum of 30,000 wetland acres and 150 miles of riparian restoration in the Valley proper alone. For more information, contact Scott Miller, Alamosa National Wildlife Refuge, 9383 El Rancho Lane, Alamosa, CO 81101. Phone: 719-852-0128; E-mail: [scott\\_g\\_miller@fws.gov](mailto:scott_g_miller@fws.gov); Web site: <http://mountain-prairie.fws.gov/pfw/colorado/co34.htm>.

#### **Partners at Work for Tampa Bay: The Palmetto Estuary Habitat Restoration**

Public and private sector organizations recently joined forces to restore a 30-acre parcel and create an urban nature park along Florida's Tampa Bay in northern Manatee County. The partners constructed 6.45 acres of intertidal wetland habitat and enhanced the existing 23.5 acres of mangroves present on the site by removing invasive Brazilian pepper and Australian pine. The partners enlisted the help of 225 community volunteers to help them plant native plants in the newly created wetland areas. The Riviera Dunes Resort, a private development adjacent to the restoration site, covered much of the cost of design, land clearing, and surveying.

The project was sponsored by the Southwest Florida Water Management District's Surface Water Improvement and Management (SWIM) program in conjunction with the City of Palmetto, Sveda Ecological Inc., and the Riviera Dunes Resort. It provides nature viewing opportunities for residents of the small community of Palmetto, as well as important fish and wildlife habitat in a rapidly growing area of the Tampa Bay waterfront. For more information, or to see pictures of the restoration, visit [www.tbep.org/press/palmettoestuary.html](http://www.tbep.org/press/palmettoestuary.html).

*If you are part of an innovative community-based partnership that is working to restore river corridors or wetlands, we'd like to hear from you. Please send a short description of your partnership to [restorationupdate@tetrattech-ffx.com](mailto:restorationupdate@tetrattech-ffx.com).*

## **Achieving Restoration Results**

### **Isolated Wetland Given a Second Chance**

Isolated wetlands have received a great deal of attention in recent months. Aiken, a city in southwestern South Carolina, has gone to great lengths to restore a portion of the unique isolated wetland system known as Carolina Bays. Bays occur in elliptical depressions scattered across the southeastern Coastal Plain of the United States. These wetlands are largely fed by rainwater and shallow groundwater. Most of the bays periodically dry out and therefore do not support large fish populations. These areas provide reptiles, amphibians, and aquatic invertebrates with the moist habitat they need for reproduction, while freeing them from their dominant predator—fish. The bays also offer valuable habitat for both resident and migratory birds.

Since the mid-1990s, the City of Aiken and the Aiken County Open Land Trust have worked together to protect a Carolina Bay located within Aiken's city limits. In 1996 the City of Aiken acquired 10 acres containing a Carolina Bay. A few years later the Aiken County Open Land Trust acquired an additional 14-acre parcel surrounding the bay. The Trust used a \$40,000 North American Wetlands Conservation Act Small Grant, matched by \$60,000 from the City of Aiken and \$210,000 from the Trust, to acquire the upland acreage. Another 3-acre purchase is under way. When completed, the entire acquisition will be donated to the City and permanently protected by a conservation easement retained by the Trust.

Much work was needed after the acquisition of the land. Before the 1996 land purchases, the area had been drained and used for farming. To restore the bay to its natural condition, the partners restored the natural hydrology and transplanted native plants from other local bays. Today the bay supports various native plant species, and wildlife have returned to the area. The bay supports a wide variety of frogs, salamanders, and insects, as well as several pairs of little green herons.

Information for this article was gathered from the fall 2002 issue of *Birdscapes*. For more information on the Carolina Bay restoration project, contact Lee Dane, Aiken County Open Land Trust, 437 Easter Branch Road, Ridge Spring, SC 29129; phone: 803-685-7878; e-mail: [leedane@aol.com](mailto:leedane@aol.com).

### **Floods Reduced by Restoring Streams**

The City of Eugene, Oregon, is working to reduce flooding through streambank restoration. In summer 2002 the City's Natural Resource Maintenance staff worked with youth crews and the Sheriff's Municipal Court Offender Crew to selectively remove vegetation along upper Amazon Creek to prevent winter flooding. By thinning willows, the City created a "tunnel" or "green pipe" within the center of the channel that will allow water passage while retaining woody vegetation along the slopes, thereby promoting bank stability, habitat, shading of the stream, and overall water quality.

In addition, crews performed restoration work along approximately 1.5 miles of lower Amazon Creek streambanks. In addition to grading and planting streambanks, the crew excavated some areas to allow more water to collect where the City is trying to encourage native wetland vegetation to become better established. Roughly 3,200 live stakes of willow, dogwood, and cottonwood, as well as 460 bareroot



Oregon ash trees and 20 Willamette Valley ponderosa pine trees, will be planted in late November along this stream corridor.

Another flood-prevention effort is under way in Eugene's Tugman Creek. In October 2002 the City began a project to realign and add meanders to the existing channeled stream through the westernmost portion of Tugman Park. Once the stream is modified, the City will plant native plants to stabilize the streambanks and to improve water quality and natural habitat in the stream corridor. The project will lengthen the stream, reduce flooding, restore natural amenities, and extend seasonal use of the open play field in the park.

Park neighbors and other interested parties have been actively involved in designing the project. Once construction is completed, the City will encourage volunteers to plant vegetation and make other interesting enhancements along the stream. Storm water user fees will fund the \$295,000 project, which is scheduled to be completed in November 2002.

For more information about the Amazon Creek projects, contact Jack Long, Open Waterways Supervisor, at 541-682-4895. For more information about the Tugman Creek project, call Terry Colvin, Project Manager, at 541-682-5398. This article was adapted from the October 3, 2002, issue of *City News*, issued weekly by the City of Eugene, OR ([www.ci.eugene.or.us/News/pastnews.htm](http://www.ci.eugene.or.us/News/pastnews.htm)).

*If you are part of an innovative restoration project that has had positive results, we'd like to hear from you. Please send a short description of your project to [restorationupdate@tetrattech-ffx.com](mailto:restorationupdate@tetrattech-ffx.com).*

## **Funding for Restoration Projects**

### **Land and Water Conservation Fund**

The Land and Water Conservation Fund (LWCF) is the largest source of federal money for parks, wildlife, and open space land acquisition and is used to protect wetlands, wilderness, and wildlife habitat. Its funding comes primarily from offshore oil and gas drilling receipts. Under the Land and Water Conservation Fund Act, a portion of the money is intended to go to federal land purchases and a portion to the states as matching grants for state and local park projects. Visit the Web site at [http://www.ahrinfo.org/lwcf\\_overview.html](http://www.ahrinfo.org/lwcf_overview.html) for a complete overview of the program.

### **Water Resources Development Act, Section 206: Aquatic Ecosystem Restoration**

Section 206 of the 1996 Water Resources Development Act provides authority for the Corps of Engineers to restore degraded aquatic ecosystems. A restoration project is adopted for construction only after investigation shows that the restoration will improve the environment, is in the public interest, and is cost-effective. Each project is limited to a federal cost of not more than \$5 million. This federal limitation includes all project-related costs for feasibility studies, planning, engineering, construction, supervision, and administration. No relationship to an existing Corps project is required. A project can be initiated by a written request placed by a prospective local sponsor. More information about Section 206 can be found in the *Mobile District Water Resources Customer's Guide* at [www.sam.usace.army.mil/pd/CustGuide/CustGuide.htm](http://www.sam.usace.army.mil/pd/CustGuide/CustGuide.htm).

### **Illinois Special Fund Grant Program Applications Being Accepted**

The Illinois Department of Natural Resources will accept grant applications for the Illinois Habitat Fund, State Pheasant Fund, and the Migratory Waterfowl Stamp Fund through December 31, 2002. Habitat and Pheasant Funds may be awarded for habitat projects that propose the protection, acquisition, development, or enhancement of habitat management areas; for research projects that address current concerns related to wildlife habitat or contribute to knowledge about the ecology and management of Illinois's wildlife; or for education projects that target members of the public who do not hunt or trap. Migratory Waterfowl Stamp Funds are for acquisition and development projects for protecting waterfowl and improving public migratory waterfowl areas in the state; for the development of waterfowl propagation areas in the Dominion of Canada or the United States that specifically provide waterfowl for the Mississippi Flyway; and for implementation of the North American Waterfowl Management Plan. Applications and additional information are available from the Illinois Department of Natural Resources' Office of Resource Conservation, One Natural Resources Way, Springfield, IL 62702-1271; phone: 217-782-2602; e-mail: [specialfunds@dnrmail.state.il.us](mailto:specialfunds@dnrmail.state.il.us) or on the DNR's Web site at <http://dnr.state.il.us/grants/index.htm>.

*Please send any news you have on funding mechanisms that are available to local community organizations to [restorationupdate@tetrattech-ffx.com](mailto:restorationupdate@tetrattech-ffx.com).*

## **News and Announcements**

### **New York Restoration Projects Receive Over \$1 Million**

In early September 2002, New York Secretary of State Randy A. Daniels announced \$1.17 million in matching grants for 10 projects to improve water quality and habitat protection. The grants are part of almost \$4.5 million in funding awarded through the state's Great Lakes Coastal Watershed Protection Restoration Program. The projects that received Great Lakes Coastal Watershed Restoration grants are listed by county.

#### *Cayuga County*

Cayuga County: Owasco Inlet streambank stabilization. The county will conduct a stream assessment of a 2-mile reach of the Owasco Inlet, which is in the Owasco Lake watershed, a public drinking water source. The assessment will provide a stream management plan that prioritizes erosion problem areas and develops conceptual plans for restoring degraded portions of the stream channel. \$374,050

#### *Cortland County*

New York State Department of Environmental Conservation: Grout Brook fish passage and streambed stabilization. NYS DEC will replace a failing fish ladder structure and eroded streambank on Grout Brook. \$37,700

*Franklin County*

Town of Fort Covington: Salmon River dam removal and anadromous fish restoration. The town will remove a dam on the Salmon River, stabilize the bank with native vegetation, and install natural in-stream structures. \$100,000

*Madison County*

Village of Cazenovia: Restoration of native shoreline habitat on Cazenovia Lake. The Village will restore native shoreline vegetation in three parks on Cazenovia Lake to increase wildlife habitat, decrease shoreline erosion, and enhance aesthetics. The project will provide a public demonstration of restoration benefits in addition to implementing a watershed protection plan for Cazenovia Lake. \$33,898

*Onondaga County*

City of Syracuse: Streambank and streambed erosion control on Grout Brook. The city will complete a comprehensive assessment of erosion needs and identification of priority sites for erosion control. The City will also implement streambank erosion projects at two sites on Grout Brook, a contributing tributary to the City's water supply. \$100,000

*Ontario County*

NYS Department of Environmental Conservation: Naples Creek aquatic habitat restoration. NYS DEC will stabilize streambanks on this important trout spawning tributary of Canandaigua Lake. \$50,000

*Oswego County*

Oswego County Soil and Water Conservation District: Lake Ontario dunes restoration management. The District will work with partners to update the Eastern Lake Ontario Dunes Management Plan, which provides guidelines for dune conservation. \$45,616

*Tompkins County*

City of Ithaca: Six Mile Creek river corridor restoration. The City will restore native forest vegetation at three priority river corridor habitat sites. \$153,000

City of Ithaca: Sciencenter stormwater reduction project. The City will construct a storm water infiltration system at the Sciencenter, a hands-on education facility, to reduce the flow of sediments and other contaminants into Cascadilla Creek. \$48,500

Town of Dryden: Design and implementation of erosion control measures; storm water and erosion control workshops for local government officials. The project includes preparing final plans, implementing erosion control measures in four priority subwatersheds of Cayuga Lake, and holding workshops on storm water management and erosion control for local government officials. \$230,845.

For more information on these or other grant projects, see the original press release at [www.dos.state.ny.us/pres/pr2002/fingerlaks9\\_04.html](http://www.dos.state.ny.us/pres/pr2002/fingerlaks9_04.html) or contact Theresa Wescott, Assistant Secretary of State for Public Affairs, at 518-474-4752.

### **Illinois River Restoration Efforts Get a Financial Boost**

In late October 2002 Illinois Governor George H. Ryan released \$2 million in funding for Illinois River Basin restoration, part of his Illinois Rivers 2020 initiative. The funding will provide a state match for more than \$5 million from the Water Resources Development Act.

“This funding will allow completion of a comprehensive plan for Illinois River Basin restoration and allow us to continue work on a number of critically important projects at key locations along the river and in the watershed,” Ryan said. “Our partnership with the federal government, local organizations, and private landowners who strongly support restoration of the Illinois River is providing a model for the nation in protecting this vitally important natural resource.”

Illinois Rivers 2020 is Governor Ryan’s 20-year, \$2.5 billion initiative aimed at restoration and watershed enhancement throughout the Illinois River Basin. Since 1998 Illinois has committed more than \$51.3 million to secure more than \$292 million in federal funding through Illinois Rivers 2020 and the Conservation Reserve Enhancement Program.

The comprehensive plan will identify restoration needs, focusing on river sedimentation, sediment removal technology, sediment transport, and beneficial uses of sediment material removed from the river channel, tributaries, and backwater lakes. The plan will also investigate and implement improvements in monitoring of watershed conditions and restoration projects. For more information see the Illinois Department of Natural Resources’ October 28, 2002, press release at <http://dnr.state.il.us/pubaffairs/pubaffrs.htm>.

### **Duck Ranch Waterfowl Management Unit Dedicated in Illinois**

At a ceremony on October 20, 2002, the Illinois Department of Natural Resources (IDNR) and Ducks Unlimited, Inc., announced the dedication of the Duck Ranch Waterfowl Management Unit hunting and waterfowl rest area. This area is adjacent to the Illinois River in Marshall and Putnam Counties, part of the Marshall State Fish and Wildlife Area. The ceremony also included the groundbreaking for a waterfowl habitat enhancement project at Weis Lake on the Cameron Unit of the Illinois River National Wildlife Refuge, a joint initiative of Ducks Unlimited and the U.S. Fish and Wildlife Service.

“Thanks to the work of our staff and to the Ducks Unlimited volunteers who have been active participants in development of the Duck Ranch Unit, we are celebrating another great example of the benefit of partnerships in enhancing waterfowl management and hunting opportunities in the Illinois River valley,” said IDNR Director Brent Manning. “We look forward to continuing our relationship with DU, the Fish and Wildlife Service, and others interested in waterfowl habitat enhancement at Duck Ranch, Weis Lake, and elsewhere in Illinois.”

The 356-acre Duck Ranch site was donated to the State of Illinois in October 2000 by the Richard King Mellon Foundation through The Conservation Fund. The site includes 196 acres of woodland and another 160 acres of water that provides habitat for waterfowl and wetland wildlife. Ducks Unlimited has invested \$80,000 in habitat improvements at Duck Ranch, and Caterpillar, Inc., is providing the heavy

equipment used to make levee repairs as part of the enhancement project. Waterfowl and forest game hunting are allowed at the site.

The wetland habitat enhancement project at Weis Lake is scheduled to begin this fall. The 320-acre backwater lake is on the west side of the Illinois River in Marshall County. The project will be funded through grants from the North American Wetlands Conservation Act, the Daniel F. And Ada L. Rice Foundation, the Buchanan Family Foundation, and Ducks Unlimited major donors.

For more information on the Duck Ranch Unit, contact the Marshall State Fish and Wildlife Area at 309-246-8351. For more information on the Weis Lake project, contact Eric Schenck, Regional Biologist, Ducks Unlimited, at 309-647-5651, or by e-mail at [eschenck@ducks.org](mailto:eschenck@ducks.org). To view the original press release, go to <http://dnr.state.il.us/pubaffairs/2002/Oct/duckranchdedic2002.htm>.

## Upcoming Conferences and Events

### New Listings

#### **Coastal Geotools**

January 6–9, 2003

Charleston, South Carolina

The Coastal GeoTools Conference focuses on the use of geospatial technology as a tool for coastal management. Technical presentations, discussion forums, and training sessions provide participants with information on the innovative uses of technology. Tools profiled in this 3-day conference include geographic information systems, remote sensing, the Global Positioning System, and the Internet. Presenters from a wide variety of government, academic, and industry organizations will relate their successes and challenges in integrating spatial technologies and coastal resource management. For more information, visit [www.csc.noaa.gov/GeoTools/](http://www.csc.noaa.gov/GeoTools/) or contact Charleston Events, LLC, P.O. Box 30383, Charleston, SC 29417-0383, phone: 843-740-1284, fax: 843-740-1316.

#### **Coastal Technology Transfer Conference**

January 28–31, 2003

Cocoa Beach, Florida

EPA is holding a Technology Transfer Conference to examine current and emerging coastal and ocean management tools, techniques, and strategies, as well as to consider mechanisms for enhancing the nation's ability over the next 25 years to protect and manage coastal ecosystems in the face of new challenges. The conference will be organized around four broad themes: assessment, management, restoration, and measuring results. To encourage the productive exchange of information and ideas about topics, the conference format will include case study presentations about successful, transferable technologies and tools; presentations and panels synthesizing the state of knowledge about specific coastal ecosystem issues; interactive poster sessions highlighting a wide variety of tools, techniques,

research projects, and management approaches; and problem-solving sessions integrating case studies, research findings, and analyses of technical mechanisms required to anticipate and effectively address emerging coastal ecosystem challenges. To provide opportunities for full information exchange and consideration of new ideas and approaches, the conference will include both facilitated and free-form discussion time.

For more information, visit [www.tech-transfer-conference.com](http://www.tech-transfer-conference.com).

### **Inaugural National Conference on Coastal and Estuarine Habitat Restoration**

April 13–16, 2003

Baltimore, Maryland

The National Conference on Coastal and Estuarine Habitat Restoration, hosted by the nonprofit group Restore America's Estuaries, is intended to mobilize the coastal and estuarine habitat restoration community to advance knowledge, practice, pace, and success in habitat restoration. The conference will draw participants from the government, corporate, nonprofit, and academic sectors. For more information see [www.estuaries.org/nationalconference.php](http://www.estuaries.org/nationalconference.php) or contact Restore America's Estuaries by phone at 703-524-0248.

*To post your restoration news and announcements, please send information to [restorationupdate@tetrattech-ffx.com](mailto:restorationupdate@tetrattech-ffx.com).*

## **Restoration-Related Web Sites**

[www.tbep.org/index.html](http://www.tbep.org/index.html)

**Tampa Bay Estuary Program.** The Tampa Bay Estuary Program is a partnership of Florida counties, and state and federal agencies working together to sponsor research and restoration of the Tampa Bay. This site contains press releases, publications, bay restoration action plans, invitations for community involvement, and restoration reports documenting past efforts. *This site would be useful for anyone interested in taking part in restoring Tampa Bay or looking for an example of a bay restoration project.*

[www.huronpines.org/Watershed%20Projects/WATERSHED%20INDEX.htm](http://www.huronpines.org/Watershed%20Projects/WATERSHED%20INDEX.htm)

**Huron Pines RC&D Watershed Page.** Huron Pines RC&D coordinates a number of watershed projects in central Michigan. This site discusses the common threats to central Michigan watersheds, the steps being taken to protect and restore rivers and lakes, and the methods of funding these projects. *This site would be helpful for anyone looking for steps that property owners can take to protect and restore waterways near their land.*

[www.state.ak.us/local/akpages/FISH.GAME/habitat/hab\\_home.htm](http://www.state.ak.us/local/akpages/FISH.GAME/habitat/hab_home.htm)

**Alaska Habitat and Restoration Page.** This Alaska Department of Fish and Game site provides links to various habitat restoration-related resources, including technical assistance on streambank restoration and culvert installation, current wetland and stream corridor restoration projects, and recently released

publications. *This site would be useful for anyone seeking up-to-date stream corridor restoration information.*

[www.coloradowater.org](http://www.coloradowater.org)

**Colorado Watershed Assembly.** The Colorado Watershed Assembly's mission is to support collaborative efforts to protect and improve the conservation of land and natural resources of Colorado watersheds. This site provides links to Colorado watershed organizations, other nonprofit organizations with watershed interests, and current restoration projects. *This site would be useful for anyone seeking to form partnerships with or learn from the example of this successful organization.*

[www.ducks.org/conservation/shock.asp](http://www.ducks.org/conservation/shock.asp)

**Discover a Habitat Game.** This site features an on-line interactive "test your waterfowl knowledge" game developed by Ducks Unlimited. The goal of the game is to help populate three habitat regions in the United States by correctly answering questions about each habitat. As a user provides correct answers, the screen is populated by additional ducks and more points are awarded. If the user answers a question incorrectly, one of the ducks is lost to a predator and the user loses points. The game is over when the user populates all the habitats or loses all of the ducks and points. When a user successfully populates all the habitats he or she wins a certificate that can be downloaded and printed. Most of the questions focus on the Ducks Unlimited organization or on waterfowl types, numbers, and habits. Although wetlands are not the focus, the game does pose some wetland questions related to waterfowl. *This site offers waterfowl enthusiasts an opportunity to test their knowledge while having fun.*

[http://clean-water.uwex.edu/rockriver/RRC\\_native\\_shorline\\_demos.htm](http://clean-water.uwex.edu/rockriver/RRC_native_shorline_demos.htm)

**Rock River Coalition Native Shoreline Restoration Projects.** This site offers brief descriptions and photographs of five shoreline restoration efforts sponsored by Wisconsin's Rock River Coalition and its state and local partners. The site offers examples of structured designs, such as fences and outlined planting beds designating the restored area, as well as the more typical natural designs (no special delineation). *This site would be useful for anyone looking for pictures of restoration projects in various stages of completion.*

<http://www.glo.state.tx.us/coastal/erosion.html>

**Texas Coastal Erosion Planning and Response Program.** Through this program the Texas General Land Office works closely with coastal communities to learn more about their erosion concerns. They help the communities develop innovative program ideas and management strategies that will stem erosion and preserve valuable habitat, protect public infrastructure, and enhance their tax base. This site offers historical and current coastal erosion rate maps, information on legislation that pertains to coastal erosion, photographs and maps of the Texas coast, and links to many completed and ongoing shoreline protection and restoration projects. *This site would be useful for anyone interested in coastal erosion and restoration issues on the Gulf of Mexico.*

[http://www.wdc.keystone.edu/Virtual/field\\_trip.html](http://www.wdc.keystone.edu/Virtual/field_trip.html)

**Keystone College's Willary Water Discovery Center–Water Discovery Trail Virtual Field Trip.** This site offers a virtual tour of the Water Discovery Nature Trail at the Streamside Campus of Pennsylvania's Keystone College. The tour provides a very comprehensive look at the role that water plays in different ecosystem functions. Discussions include wetland and riparian area function and



restoration. *This site would be useful for anyone looking for an excellent, easy-to-understand source of introductory information about the importance of water in an ecosystem.*

*Let us know about your restoration-related Web site. Please send relevant URLs to [restorationupdate@tetrattech-ffx.com](mailto:restorationupdate@tetrattech-ffx.com).*

## **Information Resources**

### **Wetland-Related Audiovisual Resources Available**

New York's Educational Images, Ltd. ([www.educationalimages.com/sx030005.htm](http://www.educationalimages.com/sx030005.htm)) produces a series of plant succession and wetland videos, filmstrips, CD-ROMs, and other resources including the following:

**Bog Ecology.** Available in video, slides, or filmstrip format, this comprehensive program explores the origin and formation of bogs, introduces common plants and animals, and compares bogs to other types of wetlands. Bog succession is illustrated by use of diagrams and photographs. Includes guide. (Video order #SS-1075V, \$79.95; slides order #SS-1075S, \$99.95; filmstrip order #SS-1075F, \$49.95.)

**Ecology of a Bog.** This slideshow describes the formation and maintenance of a typical bog environment, explains its special characteristics and problems, and surveys typical bog flora and fauna. Viewers can learn why bogs “quake,” and become familiar with bog flora and fauna such as marsh marigold, sphagnum moss, insectivorous plants, sedges, larch, spruce, cranberry, Labrador tea, buckbean, three species of orchids, salamander, wood frog, vole, jumping mouse, and the endangered bog turtle. This resource includes 20 slides and a detailed guide (Order #109, \$42.50).

**Ecology of a Swamp.** This slideshow introduces the ecosystem of the Okefenokee Swamp in Georgia. It provides a photographic exploration of the world of millions of singing creatures—insects, reptiles, amphibians, and birds—and a garden of spectacular flower displays. Text details the significant and unusual characteristics of the animals and plants presented and provides insights into their valuable and unique wetland biome. This resource includes 20 slides and a detailed guide (Order #122, \$42.50).

For more information about each of the above resource's contents, as well as details about additional videos, films, slides, and CD-ROMs, see [www.educationalimages.com/sx030005.htm](http://www.educationalimages.com/sx030005.htm). These resources are produced by Educational Images, Ltd., PO Box 3456 Westside Station, Elmira, NY, USA, 14905-0456. Telephone: 800-527-4264; 607-732-1090.

### ***Wildlife Restoration: Techniques for Habitat Analysis and Animal Monitoring*** by the Society for Ecological Restoration (2002)

*Wildlife Restoration* is a 215-page guide to restoring wildlife and the habitats on which they depend. The book explains the link between restoration ecology and wildlife management, offers readers a thorough overview of the types of information needed when planning a wildlife-habitat restoration project, and provides the basic tools necessary for developing and implementing a rigorous monitoring program. To



order this book (\$20.00), visit the Society for Ecological Restoration's Web site at [www.ser.org](http://www.ser.org) and click on the link to *Wildlife Restoration* near the bottom of the page.

***Guidelines for Developing and Managing Ecological Restoration Projects***

by the Society for Ecological Restoration (2000)

This guide has been developed to help restoration practitioners plan and implement an ecological restoration project. It outlines conceptual planning, installation planning, installation tasks, and evaluation of a restoration project. The complete guide may be viewed or downloaded at [www.ser.org/reading.php?pg=guidelines4er](http://www.ser.org/reading.php?pg=guidelines4er).

*If you'd like to publicize the availability of relevant information resources, please send information to [restorationupdate@tetrattech-ffx.com](mailto:restorationupdate@tetrattech-ffx.com).*